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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/599,254 | 09/23/2006 | Guofu Zhou | US040153US2 | 1866 |

24737 7590 09/18/2009
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

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| EXAMINER |
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BOYD, JONATHAN A

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| ART UNIT | PAPER NUMBER |
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2629

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| MAIL DATE | DELIVERY MODE |
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09/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/599,254 | Applicant(s) ZHOU, GUOFU | |
| | Examiner JONATHAN BOYD | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/25/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgment is made of Applicant's Information Disclosure Statement (IDS) Form PTO-1449 filed on January 25th 2007. The IDS has been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gates et al (6,531,997) (herein "Gates").

In regards to claim 1, Gates teaches a method for providing respective voltage waveforms for driving respective portions of a bi-stable display (*See; Abstract*), the method comprising: accessing data defining the respective voltage waveforms; and generating the respective voltage waveforms for driving the respective portions of the bi-stable display according to the accessed data so that each of the respective voltage waveforms is used for driving the respective portion of the bi-stable display from a respective different initial optical state to a common final optical state (*See; Column 30, lines 40-46 and Fig. 14, blanking frame 140*), and each of the respective voltage waveforms includes at least a first re-addressing pulse (*See; Column 30, lines 31-39*

and Fig. 14, addressing frame 136).

In regards to claims 2, 12 and 17, Gates inherently teaches wherein: the generating comprises generating the respective voltage waveforms so that each of the respective voltage waveforms includes the at least a first re-addressing pulse for providing each of the respective portions of the bi-stable display (*See; Fig 14, addressing frame 136*) with a substantially uniform brightness decay versus unpowered holding time characteristic (*Since this is a result to be achieved by the re-addressing pulse, than Gates inherently teaches providing a uniform brightness decay versus unpowered holding time characteristic since the waveform structure is the same*).

In regards to claim 3, 4, 5, 13 and 18, Gates teaches wherein: the generating comprises generating the respective voltage waveforms so that each of the respective voltage waveforms includes the at least a first re-addressing pulse with substantially the same energy, pulse shape and polarity in each of the respective voltage waveforms (*See; Figure 14, where situation B and D, both being driven to dark, have the same addressing pulse 136 and similarly situation A and C, both being driven to white, have the same addressing pulse 136*).

In regards to claim 6, Gates teaches wherein: the generating comprises generating the respective voltage waveforms so that each of the respective voltage waveforms includes a plurality of re-addressing pulses with substantially the same pulse

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shape in each of the respective voltage waveforms (*See; Fig. 13 for addressing period 132 with a plurality of addressing pulses*).

In regards to claim 7, 14 and 19, Gates teaches wherein: the pulse shape which is substantially the same in each of the respective voltage waveforms comprises the at least a first re-addressing pulse, which has a first polarity which is the same in each of the respective voltage waveforms, followed by a second re-addressing pulse, which has a second polarity that is opposite the first polarity, and which is the same in each of the respective voltage waveforms (*See; Fig. 13 for addressing period 132 with a plurality of addressing pulses that change polarity*).

In regards to claim 8, Gates teaches wherein: the pulse shape which is substantially the same in each of the respective voltage waveforms comprises the at least a first re-addressing pulse (RP1), which has a first polarity which is the same in each of the respective voltage waveforms, followed by a second re-addressing pulse (RP2), which has a second polarity that is opposite the first polarity, and which is the same in each of the respective voltage waveforms, followed by a third re-addressing pulse (RP3), which has the first polarity (*See; Fig. 13 for addressing period 132 with a plurality of addressing pulses that change polarity every other pulse*).

In regards to claim 9, Gates teaches the generating the respective voltage waveforms comprises generating the respective voltage waveforms so that each of the

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respective voltage waveforms includes a driving pulse preceding the at least a first re-addressing pulse for driving the respective portion of the bi-stable display from the respective different initial optical state substantially to the common final optical state (*See; Column 3, lines 22-31 and Fig. 14, driving pulse 134*).

In regards to claim 10, 15 and 20, Gates teaches an electrophoretic display (*See; Column 30, lines 18-19*).

In regards to claim 11 and 16, Gates teaches an electronic reading device, comprising: a bi-stable display (*See; Abstract*); and a control for providing respective voltage waveforms for driving respective portions of a bi-stable display to a common final optical state (*See; Column 30, line 57 and Fig. 14*) by: (a) accessing data defining the respective voltage waveforms (*See; Column 31, lines 6-10*), and (b) generating the respective voltage waveforms for driving the respective portions of the bi-stable display according to the accessed data (*See; Column 30, lines 14-46 and Fig. 14*) so that each of the respective voltage waveforms is used for driving the respective portion of the bi-stable display from a respective different initial optical state to a common final optical state (*See; Column 30, lines 40-46 and Fig. 14, blanking frame 140*), and each of the respective voltage waveforms includes at least a first re-addressing pulse (*See; Column 30, lines 31-39 and Fig. 14, addressing frame 136*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN BOYD whose telephone number is (571)270-7503. The examiner can normally be reached on Mon - Fri 6:00 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. B./
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629